**Curriculum Vitae**

**Runze Chen**

**runze.chen@postgrad.manchester.ac.uk**

**Department of Computer Science**

**University of Manchester**

**Oxford Road, Manchester**

**United Kingdom, M13 9PL**

**EDUCATION**

* **M. Eng:** College of Computer, NUDT, China. 2015.09–2017.12.
  + Major: Computer science and technology
  + Average score: 88.5/100, within top 5% of my grade
  + Advisor: Prof. Yuhua TANG, yhtang62@163.com
  + Organization: Interdisciplinary Center for Quantum Information (ICQI)
  + Research field: Quantum Computing, Optical Computing, Ultrafast Nano-optics, Hardware Controlling Programming
* **B. Eng:** College of computer, NUDT, China. 2011.09–2015.06.
* Major: Computer science and technology
* Average score: 90.7/100, ranked No.1 in my grade
* Organization: State key Laboratory of High Performance Computing (HPCL)

**PUBLICATIONS**

1. Tian Jiang, **Runze Chen,** Xin Zheng, Zhongjie Xu, and Yuhua Tang, “Photo-Induced Excitonic Structure Renormalization and Broadband Absorption in Monolayer Tungsten Disulphide”, *Optics Express* **26**(2), 859-869 (2018) (Co-1st Author)
2. Jun Zhang, Hao Ouyang, Xin Zheng, Jie You, **Runze Chen,** Tong Zhou, Yizhen Sui, Yu Liu, Xiang’ai Cheng, and Tian Jiang, “Ultrafast saturable absorption of MoS2 nanosheets under different pulse-width excitation conditions”, *Optics Letters* **43**(2), 243-246 (2017)
3. Lan Yang, Ke Wei, Zhongjie Xu, Feiming Li, **Runze Chen**, Xin Zheng, Xiang’ai Cheng, and Tian Jiang, “Nonlinear absorption and temperature-dependent fluorescence of perovskite FAPbBr3 nanocrystal”, *Optics Letters* **43**(1), 122-125 (2017)
4. **Runze Chen**, Xin Zheng, and Tian Jiang, “Broadband Ultrafast Nonlinear Absorption and Ultra-Long Exciton Relaxation Time of Black Phosphorus Quantum Dots”, *Optics Express* **25**(7) (2017)
5. **Runze Chen**, Yuhua Tang, Xin Zheng, and Tian Jiang, “Giant Nonlinear Absorption and Excited Carrier Dynamics of Black Phosphorus Few-Layer Nanosheets in Broadband Spectra”, *Applied Optics* **55**(36) (2016)
6. Ke Wei, Zhongjie Xu, **Runze Chen**, Xin Zheng, Xiangai Cheng, and Tian Jiang, “Temperature-Dependent Excitonic Photoluminescence Excited by Two-Photon Absorption in Perovskite CsPbBr3 Quantum Dots”, *Optics Letters* 41(16) (2016)
7. **Runze Chen**, Xin Zheng, Yangwei Zhang, Yuhua Tang, and Tian Jiang, “Z-Scan Measurement of Nonlinear Optical Properties of BiOCl Nanosheets”, *Applied Optics* **54**(21) (2015)
8. Zheng, Xin, **Runze Chen**, Gang Shi, Jianwei Zhang, Zhongjie Xu, Xiang’ai Cheng, and Tian Jiang, “Characterization of Nonlinear Properties of Black Phosphorus Nanoplatelets with Femtosecond Pulsed Z-Scan Measurements”, *Optics Letters* **40**(15) (2015)
9. Zheng, Xin, Yangwei Zhang, **Runze Chen**, Xiang’ai Cheng, Zhongjie Xu, and Tian Jiang, “Z-Scan Measurement of the Nonlinear Refractive Index of Monolayer WS2”, *Optics Express* **23**(12) (2015)
10. **Runze Chen**, Sijin Li, Huisheng Mao, and Fan Zhang, “Research on anti-leakage system of sensitive information based on Android platform”, *Network Security Technology & Application* **4** (2014)
11. **Runze Chen**, Sijin Li, Huisheng Mao, and Jianglong Song, “Design and implementation of five level pipelined general processor based on Verilog programming”, *Electronic Technology & Software Engineering* **5** (2014)

**RESEARCH & EXCHANGE EXPERIENCE**

1. **Research on ultrafast spin and valley polarization properties of excited carrier dynamics in two-dimensional (2D) semiconductors**. 2016.10 – 2017. 2
   1. Designed and implemented an optical experimental system based on LabVIEW. The system has been applied for utility model patent.
   2. Researched and analyzed the potential of application 2D materials in quantum computing, spintronics and valleytronics.
2. **Research on Optical Nonlinear Properties of 2D Nano-materials for the sake of Improving Photonic Neural Network.** 2015.10 – 2016. 05
   1. Research on improving the Neuromorphic Silicon Photonics on Hopfield neural network (Alexander N. Tait, *et al*. arXiv:1611.02272) by using 2D nonlinear optical materials.
   2. Awarded the Excellent graduation Thesis of National University of Defense Technology in 2015. (Highest score in the last oral defense)
3. **Research on an Intelligent and Secure Express System based of NFC Authentication Strategy**. 2014.03 – 2014. 08 (Marked as **1st Prize** in National Information Security Contest for College Students)
   1. Designed and implemented a server-client system for parcel express companies.
   2. The system includes near field communication (NFC) stickers which cryptographically stores the key information of users and delivery addresses, software system and database system distributing at client-end and server-end, respectively.
4. **Research on Anti-Leakage System of Sensitive Information on Android Platform**. 2013.05 – 2014. 03 (Marked as **Excellent** in the National Undergraduate Innovation Programs)
   1. Modified the source code of Android operating system (JAVA and C++) and constructed a Front-End system by JAVA to realize real-time monitoring of user’s sensitive information in smartphones.

**HONORS & AWARDS**

* **Excellent Student Award of College**, NUDT, 2012, 2013, 2014, 2015, 2016, 2017
* **Excellent Graduati****on Thesis Award**, NUDT, 2015 (Top 0.1%)
* **1st Prize** in Supercomputer Competition, NUDT, 2014 (Top 5%) [[link](http://www.asc-events.org/ASC14/index14en.php)]
* **1st Prize** in Asia Student Supercomputer Challenge (ASC) in Sun Yat-Sen University, 2014 (Top 5%) [[link](http://www.asc-events.org/ASC14/index14en.php)]
* **1st Prize** in Kylin Software Designing Competition, NUDT, 2014 (Top 5%)
* **1st Prize** in National Information Security Contest for College Students, 2014 (Top 5%) [[link](http://www.ciscn.cn/competition/securityCompetition?compet_id=10)]
* **1st Prize** of YinHe Scholarship, NUDT, 2014 (Top 2%)
* **Honorable Mention** in International Interdisciplinary Contest in Modelling (ICM), USA, 2014 (Top 25%) [[link](http://www.comap-math.com/mcm/2014Certs/27689.pdf)]
* **2nd Prize** in National Mathematical Contest in Modelling for College Students in Hunan Province, 2013 (Top 25%) [[link](http://hunan.shumo.com/home/yeargrade/yearteamtablelist.php?QueryYear=2013&submit=+++%E6%9F%A5%E8%AF%A2+++)]
* **Model Student of Academic Records**, NUDT, 2013 (Top 1%)

**PROGRAMMING & SOFTWARE SKILLS**

* **Proficient:** MATLAB, LabVIEW, C/C++, JAVA
* **Familiar:** Verilog, Python